

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

Listing of Claims

1. (Currently Amended) An apparatus for producing an aerosol [[,]] consisting of a gaseous component , ~~especially air, such as sterile air,~~ and a liquid component , ~~especially a sterilizing agent such as peroxide,~~ with an atomizing container [[[1)],] in which the liquid component is atomized continuously and mixed with the current of gas [[,]] passing through the atomizing container [[[1)]]] to thereby form the aerosol, wherein

an atomizing nozzle [[[8)]] for the liquid component of the aerosol is disposed centrally in the lower region of the atomizing container, a lower end of the atomizing nozzle being connected to a supply pipeline for the gaseous component, [[[1)]]] and

means ~~(2; 23)~~ for forming an upwardly directed, bundled current of gas, which flows coaxially over the atomizing nozzle [[[8)]]], are disposed in front of the atomizing nozzle [[[8)]]], the means for forming the bundled current including screens, which are disposed one above the other, enclosed in the lower end of the atomizing container.

2-4. (Canceled)

5. (Currently Amended) The apparatus of ~~one of the claims 1 to 3~~ claim 1, wherein the atomizing container [(1)] has a ~~basic~~ generally cylindrical shape.

6-8. (Canceled)

9. (Currently Amended) The apparatus of claim [(8)] 1, wherein the screens are combined into a screen package [(23)].

10. (Currently Amended) The apparatus of ~~claims 8 or~~ claim 9, wherein the ~~supplying~~ supply pipeline [(6)] for the gaseous component discharges over an elbow [(25)] laterally into a straight part [(26)] of a pipeline of a connecting piece [(27)], which is connected below the screen package [(23)] coaxially to the lower end of the atomizing container [(1)] and, over a return line [(28)], with ~~[[the]]~~ an upper end of a separately set up measuring container [(11)] for the liquid component of the aerosol.

11. (Currently Amended) The apparatus of claims [(8)] 1 or 9, wherein a heating unit [(24)] is connected in the ~~supplying~~ supply pipeline [(6)] for the gaseous component.

12. (Currently Amended) The apparatus of claims ~~[[8]]~~ 1 or 9, wherein a heating unit ~~[[29]]~~ is connected in a discharging pipeline ~~[[22]]~~ connected to ~~[[the]]~~ an upper end of ~~[[an]]~~ the atomizing container ~~[[1]]~~.

13. (Currently Amended) The apparatus of claims ~~[[8]]~~ 1 or 9, wherein a shut-off valve, which ~~can be~~ is actuated by means of an actuator, is provided in the ~~supplying supply~~ pipeline ~~[[6]]~~ for the gaseous component.

14. (Currently Amended) The apparatus of ~~claims 8 or 9~~ claim 12, wherein a shut-off valve, which ~~can be~~ is actuated by means of an actuator, is provided in the discharging pipeline.

15. (Currently Amended) The apparatus of ~~one of the claims 1 to 3, 8 or 9~~, wherein a connecting line ~~[[14]]~~, enclosing a pump ~~[[15]]~~, emerges from ~~[[the]]~~ a lower end of ~~[[the]]~~ a measuring container ~~[[11]]~~, and is passed into the atomizing container ~~[[1]]~~ and carries the atomizing nozzle ~~[[8]]~~ at its end.

16-18. (Canceled)

19. (Currently Amended) The apparatus of ~~one the claims 1 to 3, 8 or 9~~ claim 15, wherein a flow meter [(34)] is provided in the ~~pipeline (14)~~ connecting line connecting the measuring container [(11)] and the atomizing nozzle [(8)].

20. (Currently Amended) The apparatus of claim 19, wherein at least one inspection opening, closed off by a sight glass [(13)], is provided in [(the)] a side wall of the atomizing container [(1)].

21. (Currently Amended) An apparatus for producing an aerosol from a gaseous component and a liquid component, comprising:

an atomizing container;

an atomizing nozzle arranged in said atomizing container to receive and atomize the liquid component; [(and)]

flow forming means for receiving the gaseous component and forming a gaseous component flow around said atomizing nozzle such that the gaseous component flow mixes with the atomized liquid component to form the aerosol, the gaseous component flow being formed by said flow forming means coaxial to said atomizing nozzle; and

a supply pipeline connected to said flow forming means for supplying the gaseous component to said flow forming means,

said flow forming means comprising screens enclosed in a lower end of said atomizing container and arranged one above another.

22. (Previously Presented) The apparatus of claim 21, wherein said flow forming means are arranged behind said atomizing nozzle in a flow direction of the atomized liquid component.

23. (Previously Presented) The apparatus of claim 21, wherein said atomizing nozzle is arranged to direct the liquid component upward and said flow forming means are arranged to direct the gaseous component upward around said atomizing nozzle.

24. (Previously Presented) The apparatus of claim 21, wherein said atomizing container has a lower region, said atomizing nozzle being arranged in a central portion of said lower region of said atomizing container.

25-28. (Canceled)

29. (Previously Presented) The apparatus of claim 21, wherein said atomizing nozzle comprises a spherical nozzle body having a nozzle slot passing radially through said nozzle body.

30. (Previously Presented) The apparatus of claim 21, wherein said atomizing container has a cylindrical shape.

31-33. (Canceled)

34. (Currently Amended) The apparatus of claim ~~[[33]]~~ 21, wherein said screens are combined into a screen package.

35. (Currently Amended) The apparatus of claim ~~[[33]]~~ 21, wherein said supply pipeline includes a connecting piece including an elbow part through which the gaseous component is passed into said atomizing container and a straight part arranged below said screens.

36. (Previously Presented) The apparatus of claim 35, further comprising:

a measuring container for containing the liquid component, the liquid component being supplied from said measuring container to said atomizing nozzle; and

a return line connecting said connecting piece to said measuring container.

37. (Currently Amended) The apparatus of claim ~~[[33]]~~ 21, further comprising a heating unit arranged in connection with said supply pipeline for heating the gaseous component in said supply pipeline.

38. (Currently Amended) The apparatus of claim ~~[[33]]~~ 21, further comprising a shut-off valve arranged in connection with said supply pipeline, said shut-off valve being adapted to be actuated by an actuator.

39. (Previously Presented) The apparatus of claim 21, further comprising:

a discharge pipeline connected to an upper end of said atomizing container through which the aerosol exits from said atomizing container; and

a heating unit arranged in connection with said discharge pipeline for heating the aerosol in said discharge pipeline.

40. (Previously Presented) The apparatus of claim 39, further comprising a shut-off valve arranged in connection with said discharge pipeline, said shut-off valve being adapted to be actuated by an actuator.

41. (Previously Presented) The apparatus of claim 21, further comprising:

a measuring container for containing the liquid component;

a connecting line leading from said measuring container to said atomizing nozzle through which liquid is directed from said measuring container to said atomizing nozzle, said atomizing nozzle being arranged at an end of said connecting line; and

a pump arranged in connection with said connecting line.

42-44. (Canceled)

45. (Previously Presented) The apparatus of claim 21, further comprising:

a measuring container for containing the liquid component;

a pipeline connecting said measuring container and said atomizing nozzle, the liquid component being supplied from said measuring container to said atomizing nozzle through said pipeline; and

a flow meter arranged in connection with said pipeline.

46. (Previously Presented) The apparatus of claim 21, wherein said atomizing container has a side wall including at least one inspection opening, the apparatus further comprising a sight glass for closing each of said at least one inspection opening.

47. (Currently Amended) A method for producing an aerosol from a gaseous component and a liquid component, comprising the steps of:

arranging an atomizing nozzle in an atomizing container;

directing the liquid component to the atomizing nozzle such that the liquid component is atomized by the atomizing nozzle; and

forming a flow of the gaseous component around the atomizing nozzle such that the gaseous component flow mixes with the atomized liquid component to form the aerosol, the gaseous component flow being formed coaxial to the atomizing nozzle;

the step of forming the gaseous component flow comprising the steps of forming the gaseous component flow by means of screens arranged behind the atomizing nozzle and directing the gaseous component through the screens in a direction toward the atomizing nozzle.

48. (Previously Presented) The method of claim 47, wherein the step of forming the gaseous component flow comprises the step of forming the gaseous component flow behind the atomizing nozzle in a flow direction of the atomized liquid component.

49. (Previously Presented) The method of claim 47, further comprising the steps of:

maintaining an amount of the liquid component in a measuring container; and

supplying the liquid component from the measuring container to the atomizing nozzle.

50-53. (Canceled)

54. (Previously Presented) The method of claim 47, further comprising the step of heating the gaseous component prior to forming of the gaseous component flow.

55. (Currently Amended) The method of claim 47, further comprising the steps of:

discharging the aerosol formed in the atomizing chamber through a discharge pipeline connected to an upper end of the atomizing container; and

heating the aerosol in the discharge pipeline.

56. (New) The apparatus of claim 1, further comprising heating means for heating the gaseous component prior to mixing with the liquid component in the atomizing container.

57. (New) The apparatus of claim 56, wherein the heating means comprise a heating unit arranged in connection with the supply pipeline such that the gaseous component is heated in the supply pipeline.

58. (New) The apparatus of claim 1, further comprising heating means for heating the aerosol.

59. (New) The apparatus of claim 58, further comprising a discharge pipeline connected to an upper end of the atomizing container through which the aerosol exits from the atomizing container, the heating means comprising a heating unit arranged in connection with the discharge pipeline for heating the aerosol in the discharge pipeline.

60. (New) The apparatus of claim 21, further comprising heating means for heating the gaseous component prior to mixing with the liquid component in said atomizing container.

61. (New) The apparatus of claim 60, wherein said heating means comprise a heating unit arranged in connection with said supply pipeline such that the gaseous component is heated in said supply pipeline.

62. (New) The apparatus of claim 21, further comprising heating means for heating the aerosol.

63. (New) The apparatus of claim 62, further comprising a discharge pipeline connected to an upper end of said atomizing container through which the aerosol exits from said atomizing container, said heating means comprising a heating unit arranged in connection with said discharge pipeline for heating the aerosol in said discharge pipeline.

64. (New) The method of claim 47, further comprising the step of heating the gaseous component prior to mixing with the liquid component in the atomizing container.

65. (New) The method of claim 64, wherein the step of heating the gaseous component comprises the step of arranging a heating unit in connection with a supply pipeline through which the gaseous component flows prior to the atomizing container such that the gaseous component is heated in the supply pipeline.

66. (New) The method of claim 47, further comprising the step of heating the aerosol.

67. (New) The method of claim 66, wherein the step of heating the aerosol comprises the step of arranging a heating unit in a discharge pipeline connected to an upper end of the atomizing container and through which the aerosol exits from the atomizing container.

68. (New) An apparatus for producing an aerosol including a gaseous component and a liquid component with an atomizing container in which the liquid component is atomized continuously and mixed with the current of gas passing through the atomizing container, wherein

an atomizing nozzle for the liquid component of the aerosol is disposed centrally in the lower region of the atomizing container,

means for forming an upwardly directed, bundled current of gas, which flows coaxially over the atomizing nozzle, are disposed in front of the atomizing nozzle, and

a connecting line, enclosing a pump, emerges from a lower end of a measuring container and is passed into the atomizing container and carries the atomizing nozzle at its end.

69. (New) The apparatus of claim 68, wherein a flow meter is provided in the connecting line connecting the measuring container and the atomizing nozzle.

70. (New) The apparatus of claim 68, wherein at least one inspection opening, closed off by a sight glass, is provided in a side wall of the atomizing container.

71. (New) An apparatus for producing an aerosol from a gaseous component and a liquid component, comprising:

an atomizing container;

an atomizing nozzle arranged in said atomizing container to receive and atomize the liquid component;

flow forming means for receiving the gaseous component and forming a gaseous component flow around said atomizing nozzle such that the gaseous

component flow mixes with the atomized liquid component, the gaseous component flow being formed by said flow forming means coaxial to said atomizing nozzle;

a measuring container for containing the liquid component;

a connecting line leading from said measuring container to said atomizing nozzle through which liquid is directed from said measuring container to said atomizing nozzle, said atomizing nozzle being arranged at an end of said connecting line; and

a pump arranged in connection with said connecting line.

72. (New) An apparatus for producing an aerosol from a gaseous component and a liquid component, comprising:

an atomizing container having a side wall including at least one inspection opening;

an atomizing nozzle arranged in said atomizing container to receive and atomize the liquid component;

flow forming means for receiving the gaseous component and forming a gaseous component flow around said atomizing nozzle such that the gaseous component flow mixes with the atomized liquid component, the gaseous component flow being formed by said flow forming means coaxial to said atomizing nozzle; and

a sight glass for closing each of said at least one inspection opening.